

# Coffey County Flood Risk Review

Burlington, Kansas

January 22, 2019



**wood.**



*Your engagement in this process is important to the success of this project, so thank you for taking the time to be here today!*

# Discussion Topics

- ▶ Introductions
- ▶ Short Presentation
- ▶ Review Flood Hazard Data
- ▶ Discussion

# Why Have Floodplain Maps?

- ▶ Determine where flood insurance is needed and rate its cost.
  - ▶ Flood Insurance Rate Map (FIRM)
- ▶ To provide the basis for executing community floodplain management ordinances.
- ▶ Understand flood risk so communities can make informed planning decisions.

# FEMA Floodplain Mapping Program

- ▶ Risk Mapping Assessment and Planning
- ▶ Supports the National Flood Insurance Program. Performed on a watershed basis.
- ▶ Consists of both Regulatory & Non-Regulatory Products.
- ▶ FEMA Program that provides communities with flood information and tools they can use to enhance their mitigation plans and take action to better protect their citizens.

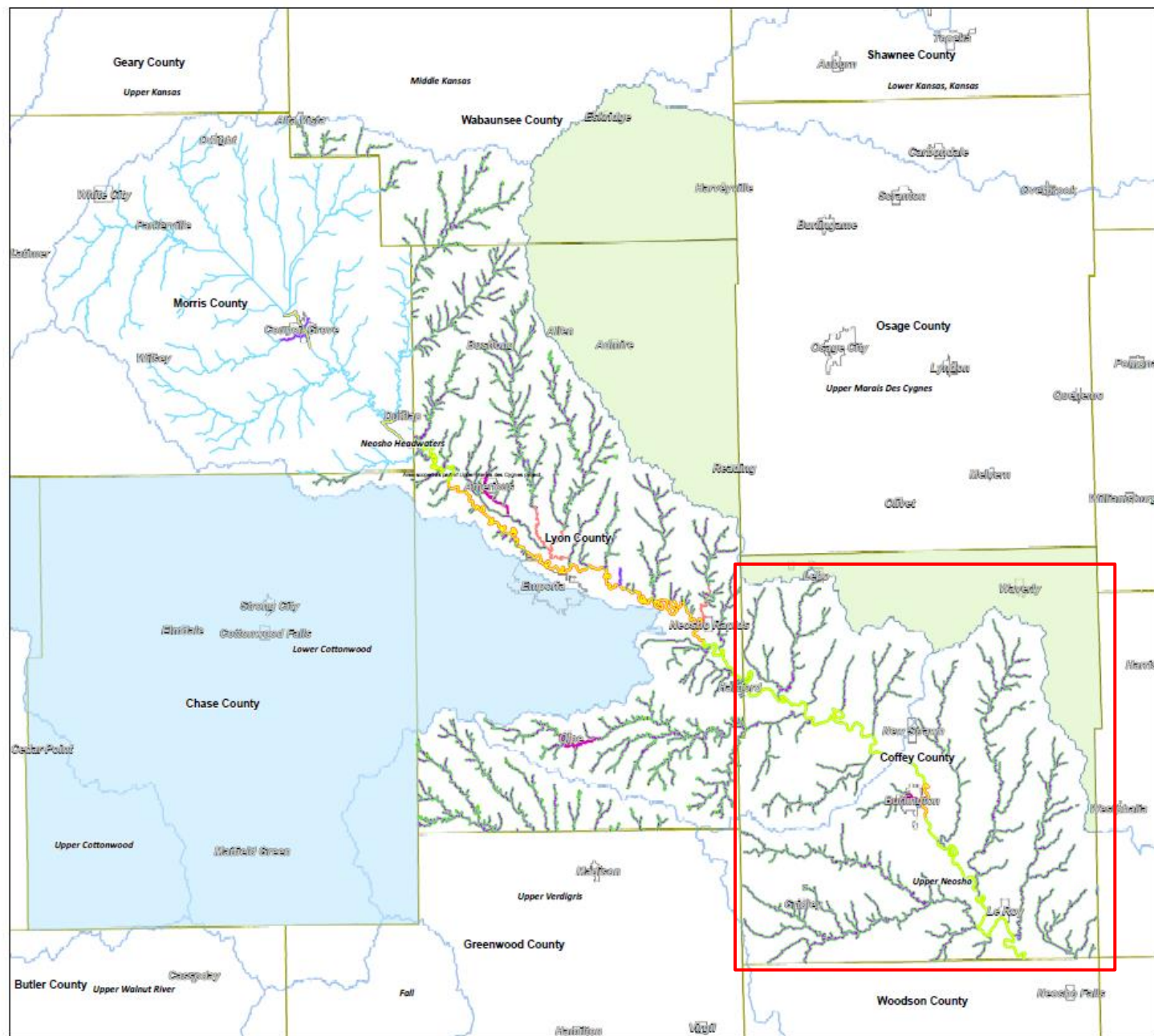
# How Did We Get Here?

- ▶ Discovery Projects
  - ▶ Neosho Headwaters and Upper Marais des Cygnes Watersheds - 2017
  - ▶ Meetings held in February 2017
- ▶ Data Development- 2018
  - ▶ Kick-off Meetings held in November 2017

# Neosho Headwaters 2017 Mapping Updates

## Scoped Studies

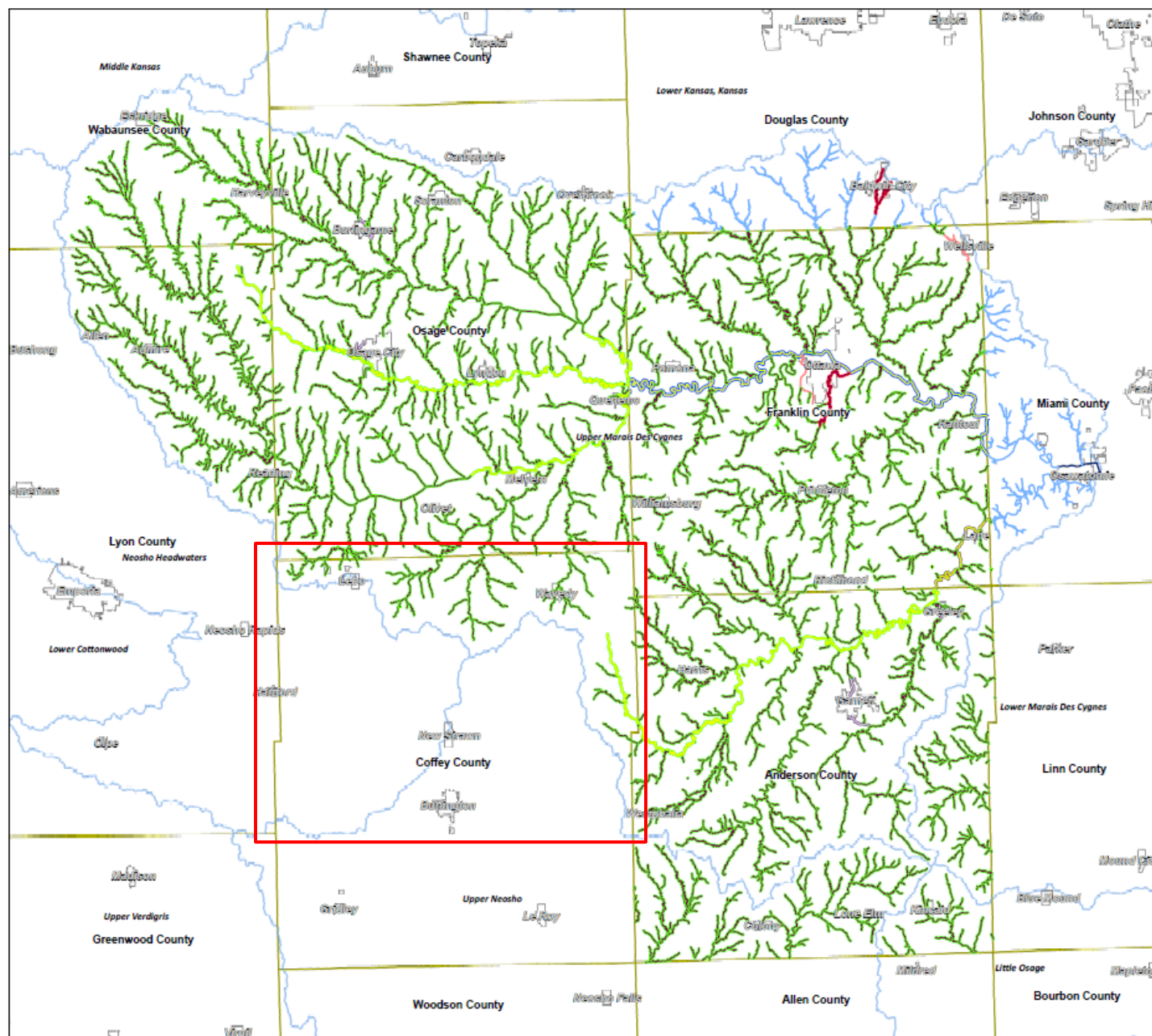
- **New Zone A - Gage Analysis**  
New Zone A studies will be developed for these streams using Gage Analysis calibrated hydrology and Hec-Ras 2D hydraulics.
- **New Zone A - Rainfall Runoff**  
New Zone A studies will be developed for these streams using Rainfall Runoff hydrology and Hec-Ras 2D hydraulics.
- **New Zone AE- (LDS) - Gage Analysis**  
New Zone AE without floodway studies will be developed for these streams using Gage Analysis calibrated hydrology, and field-measured structure data included in the 2D Hec-Ras hydraulics model. No floodway will be shown on the maps, but Base Flood Elevations will be shown.
- **New Zone AE- (LDS) - Rainfall Runoff**  
New Zone AE without floodway studies will be developed for these streams using rainfall runoff hydrology, and field-measured structure data included in the 2D Hec-Ras hydraulics model. No floodway will be shown on the maps, but Base Flood Elevations will be shown.
- **New Zone AE - Gage Analysis**  
New Zone AE studies will be developed for these streams using Gage Analysis hydrology. Survey data will be collected and incorporated into the Hec-Ras hydraulics model. Floodways will be developed.
- **New Zone AE - Rainfall Runoff**  
New Zone AE studies will be developed for these streams using Rainfall Runoff hydrology. Survey data will be collected and incorporated into the Hec-Ras hydraulics model. Floodways will be developed.
- **Zone AE, Redelineation**  
Existing Zone AE studies for these will not be restudied, but the water surface elevations will be re-mapped on newer LIDAR topography, creating updated boundaries for the Special Flood Hazard Area.
- **No New Study**  
Currently unmapped area. No studies proposed
- Area scoped as part of Upper Marais des Cygnes project.**
- Area scoped as part of Lower Cottonwood project.**



# Upper Marais des Cygnes Watershed 2017 Mapping Updates

## Scoped Studies

- **New Zone A - Gage**  
New Zone A studies will be developed for these streams using Gage Analysis hydrology and Hec-Ras 2D hydraulics.
- **New Zone A - Hec-Ras**  
New Zone A studies will be developed for these streams using Rainfall Runoff hydrology and Hec-Ras 2D hydraulics.
- **Zone A - No New Study**  
Zone A. No new studies proposed. (Douglas & Miami Counties)
- **New Zone AE - Rainfall Runoff**  
New Zone AE studies will be developed for these streams using Rainfall Runoff hydrology. Survey data will be collected and 1D Steady State Hec-Ras will be used for hydraulics.
- **New Zone AE - Existing Study**  
New study exists for the Marais des Cygnes River developed during levee certification efforts. This study will be incorporated with the new studies developed.
- **Zone AE - No new study**  
Zone AE. No new Studies proposed. (Miami County)
- **Zone AE - Redelineation**  
Existing Zone AE studies for these will not be restudied, but the water surface elevations will be re-mapped on newer LIDAR topography, creating updated boundaries for the Special Flood Hazard Area.
- **New Zone AE - Limited Detail Study (LDS) Gage Analysis**  
New Zone AE without floodway will be developed for these streams using Gage Analysis calibrated hydrology and field-measured structure data included in the 2D Hec-Ras hydraulics model. No floodway will be shown on the maps, but Base Flood Elevations will be shown.
- **New Zone AE - Limited Detail Study (LDS) Rainfall Runoff**  
New Zone AE without floodway studies will be developed for these streams using Rainfall Runoff hydrology and field-measured structure data will be included in the 2D Hec-Ras hydraulics model. No floodway will be shown on the maps but Base Flood Elevations will be shown.



- 1D Hydraulics
- 2D Hydraulics
- Static

Lower Cottonwood

Lyon

Hartford

Neosho Headwaters

New Strawn

Coffey

Burlington

Burlington

Gridley

Gridley

Upper Verdigris

Greenwood

Osage

Franklin

Upper Marais Des Cygnes

Harris

Anderson

Westphalia

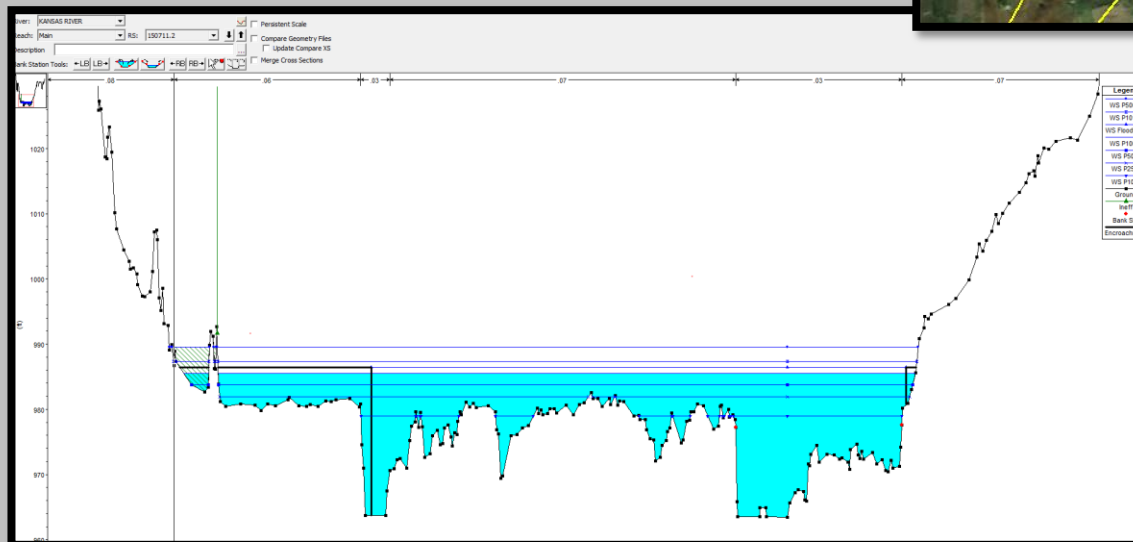
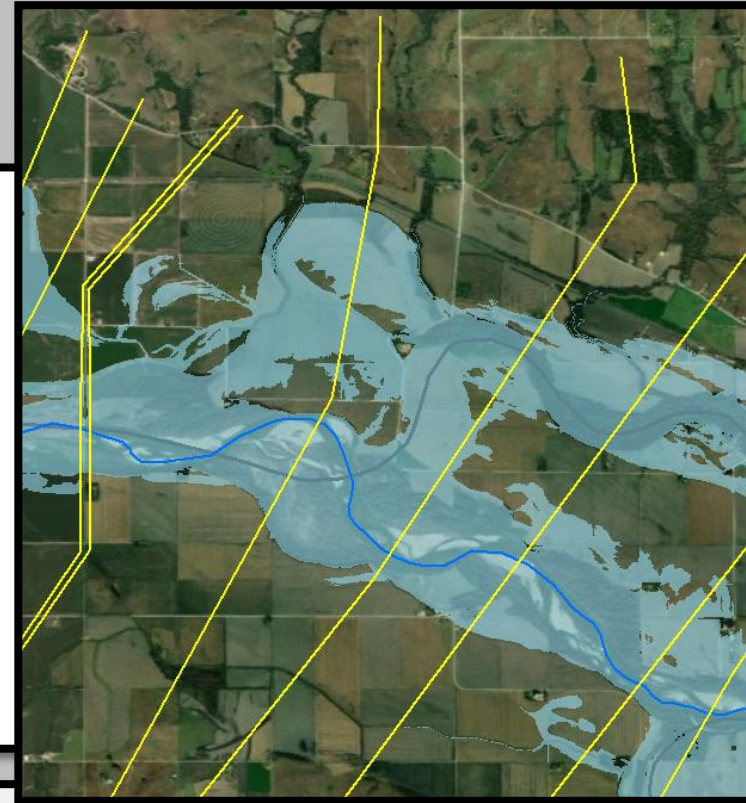
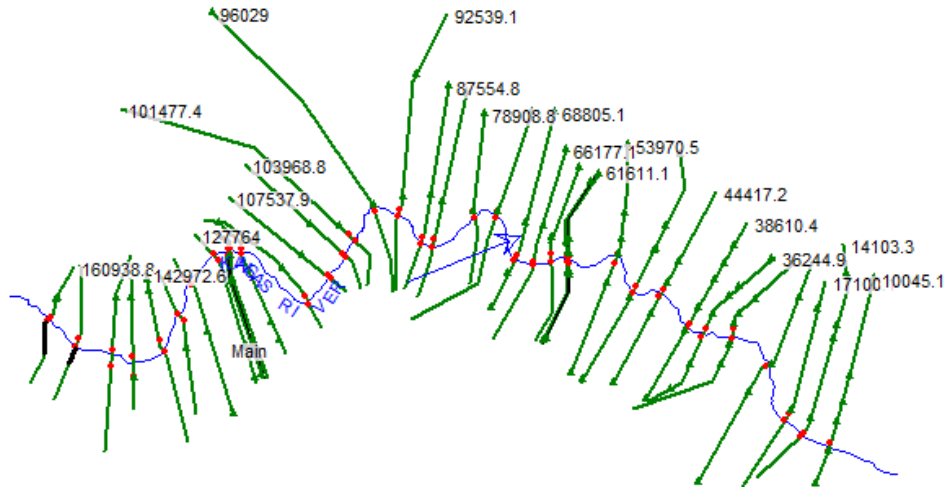
Upper Neosho

Le Roy

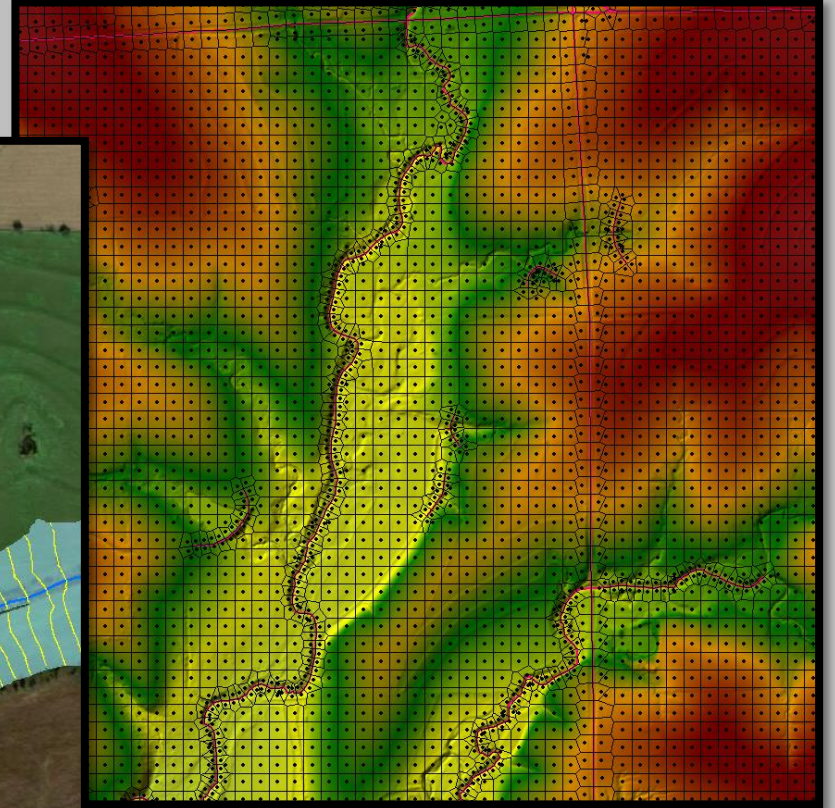
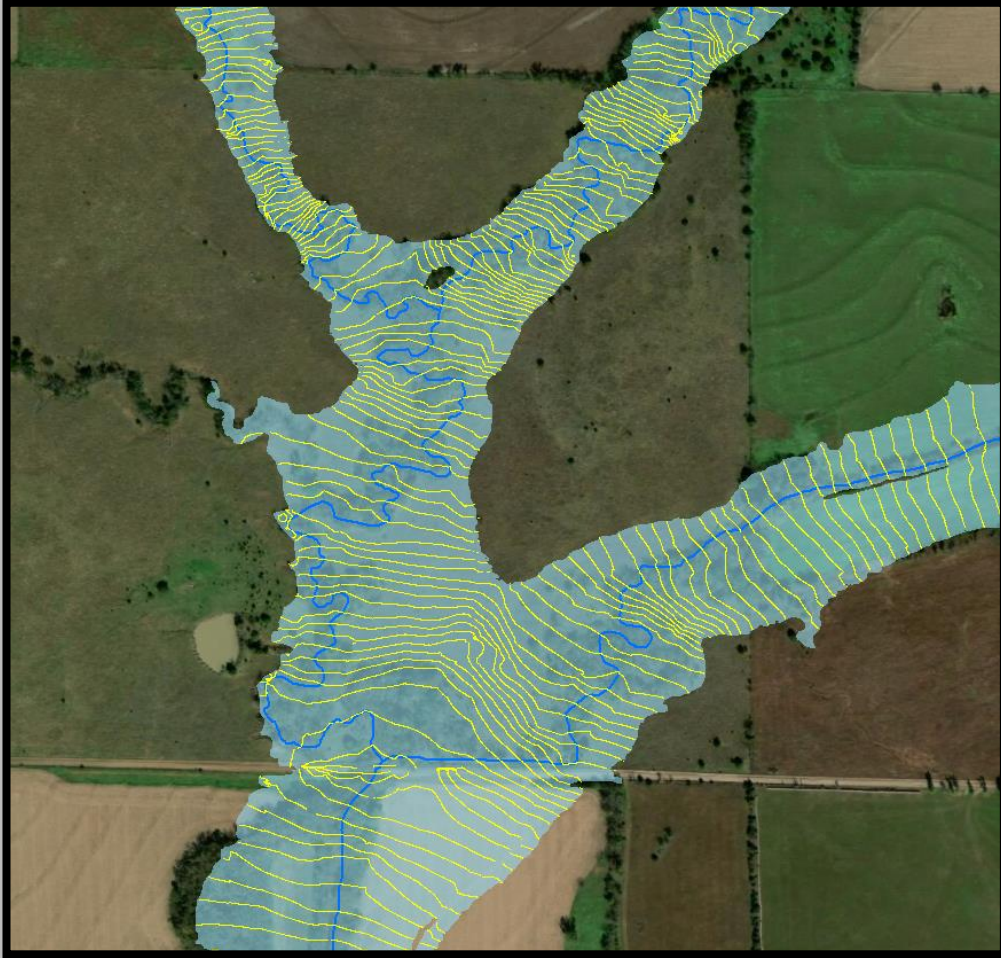
Lebo  
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Waverly

# 1D Hydraulics

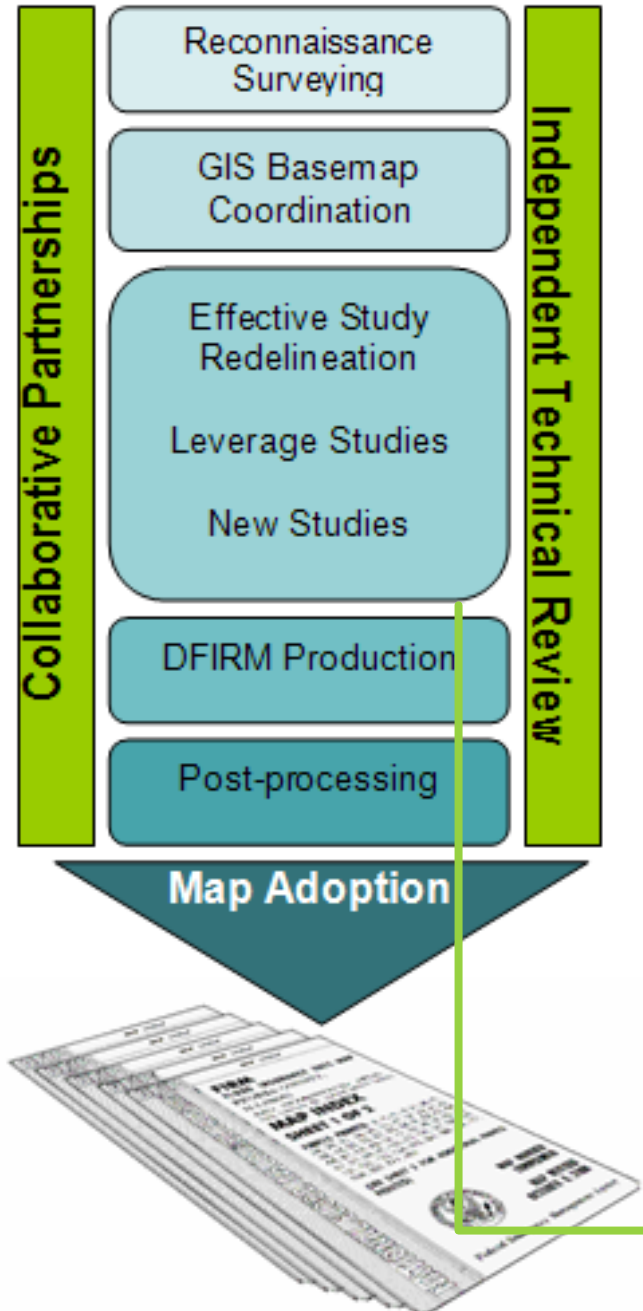


# 2D Hydraulics



# Project Tasks

1. Discovery
2. Base Map Preparation
3. Survey and Topography
4. New Studies
5. DFIRM and FIS Production
6. Post Preliminary



# Timeline

- ▶ Map Production
  - ▶ November 2017 to January 2019
- ▶ Flood Risk Review Meeting
  - ▶ January 22, 2018
- ▶ Public Open House
  - ▶ Estimated: May 2019
- ▶ Preliminary Map Distribution
  - ▶ Estimated: August 2019
- ▶ Preliminary DFIRM Community Coordination Meeting
  - ▶ Estimated: September 2019
- ▶ Appeal Period
  - ▶ Estimated: November 2019-January 2020
- ▶ Letter of Final Determination
  - ▶ Estimated: May 2020
- ▶ Effective Maps
  - ▶ Estimated: November 2020

# Map Review

- ▶ Wood E&IS Review
- ▶ Independent Technical Review (ITR)
- ▶ KDA Review
- ▶ Community Review
- ▶ Public Review
- ▶ Public Open House

# Internal Review

- ▶ Wood E&IS Review
  - ▶ Engineering reviewed by separate Wood E&IS office
- ▶ Independent Technical Review (ITR)
  - ▶ 3<sup>rd</sup> party review of engineering
  - ▶ AECOM
- ▶ KDA Review
  - ▶ Visual review
  - ▶ “eye test”
  - ▶ Identify impact of the map

# Map Review

- ▶ Most important task you have
- ▶ A review web map has been provided
- ▶ [http://gis2.kda.ks.gov/gis/Neosho\\_hw](http://gis2.kda.ks.gov/gis/Neosho_hw)
- ▶ Goal is to be in agreement on the map before Preliminary status
- ▶ This is where you look out for you

# Community Review

- ▶ Now through 2-22-19 (More if needed)
- ▶ Conduct as the Working Group / Community sees fit
- ▶ This is your chance to have a say in what the end result is. Best opportunity for changes
- ▶ Utilize Neosho Headwater Review Web Map to submit comments to KDA
- ▶ Comments are public facing (FYI)
- ▶ KDA/Wood will address comments prior to starting the Public Review

# Public Review

- ▶ Follows conclusion of Community Review
- ▶ Opportunity for property owners (or anyone) to comment on the draft mapping.
- ▶ Need Community / Working Group assistance making public aware. (we will provide an example letter)
- ▶ Will utilize same Review Web Map
- ▶ Will run for at least 30 days
- ▶ Will coincide with a public open house

# Public Open House

- ▶ Coincides with Public Review
- ▶ Open House likely held in Emporia
- ▶ Will need the working groups to help find a location and notify the public
- ▶ Open house will consist of laptop stations where property owners can discuss the draft mapping and discuss with KDA or engineers.
- ▶ Will take additional public comments at the Open House.



# Online Project Information

## ▶ Project Website

- ▶ Scoping Maps, Project Timeline, Meeting Presentations, Newsletters, Technical Reports, Web Review Map

## ▶ Web Review Map -

[http://gis2.kda.ks.gov/gis/Neosho\\_hw](http://gis2.kda.ks.gov/gis/Neosho_hw)

- ▶ Project Scope Review
- ▶ Draft Floodplain Review (when available)

## ▶ Story Maps

- ▶ Project Info
- ▶ “Floodplain Current”: Mapping Process ‘Nuts and Bolts’

Layers

Legend

## Project Data

Changes Since Last FIRM 1-18-2019

- Proposed to be out of the floodplain
- Proposed to remain in the floodplain
- Proposed to be in the floodplain
- New Digital Floodplain

Counties

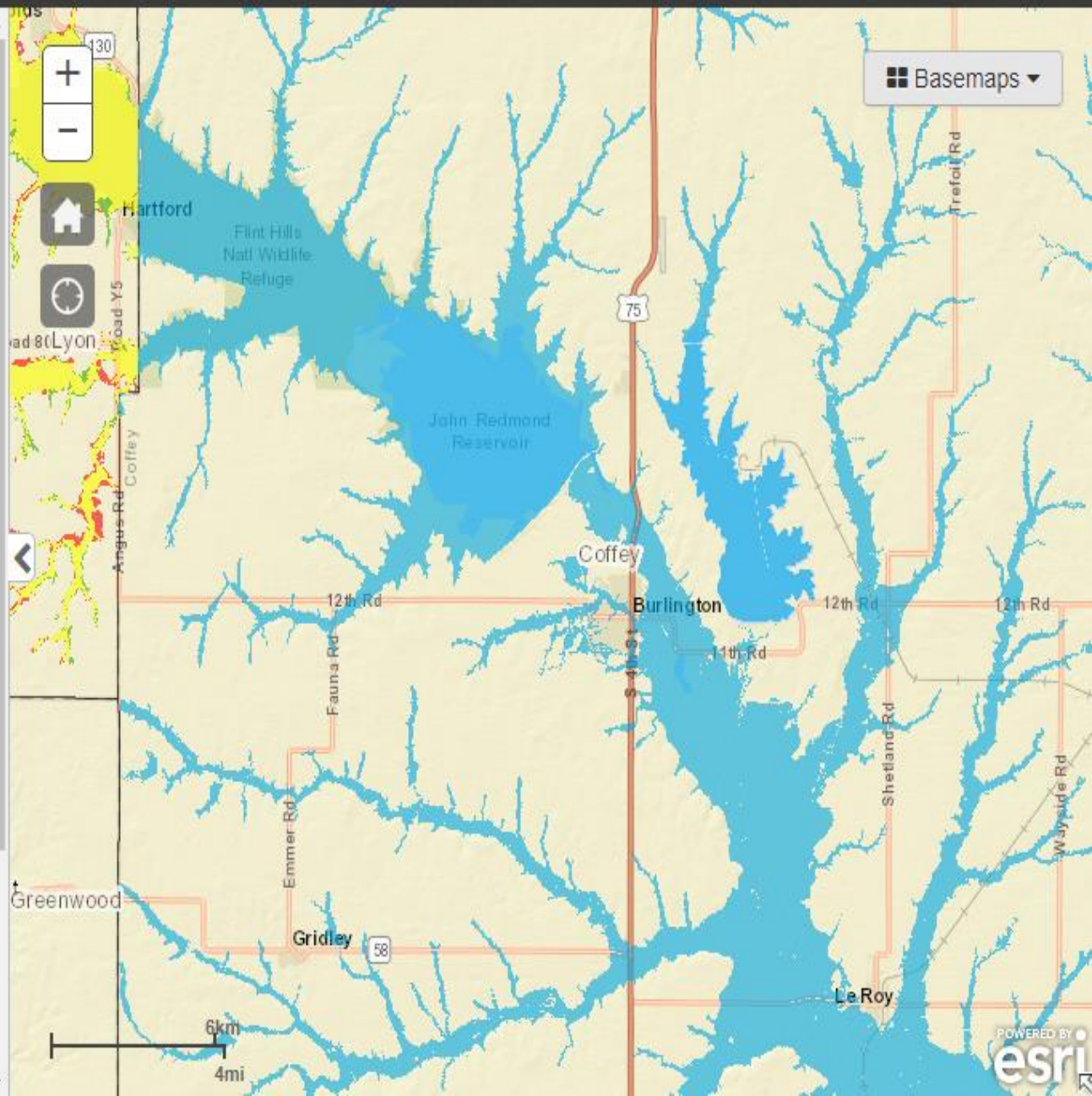


Comments



Editor

Leave Comment



# What Should You Do Next?

## ▶ Map Review

- ▶ Look at the draft floodplains for your community.
- ▶ Comment on areas of concern or areas that look correct.
- ▶ How do the stream extents look? Are we missing anything?
- ▶ Has there been any new, elevated development since the 2010 LiDAR?
  - ▶ We will have 2017/2018 LiDAR here around April 1, 2019

## ▶ Assist with Public Outreach

- ▶ Public Open House
  - ▶ When, where, how to spread the word
- ▶ Inform public of map review opportunity
- ▶ Encourage Public Participation
- ▶ Long Term Outreach/Mitigation

# Key Take-a-ways

- ▶ Process takes time
  - ▶ Maps will not be Effective until Fall 2020 at earliest
- ▶ **Get it right before Preliminary!**
  - ▶ Review draft floodplain information
  - ▶ Get out the word and encourage participation
- ▶ You need ownership of your regulatory map and to believe what it says
- ▶ **We are available to answer your questions**

# Discussion

Review of the floodplains

# Q & A

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Division of Water Resources

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